

Section of Orthopædics

President K I Nissen FRCS

Meeting November 6 1962

Ring Constrictions [*Summary*]

by Sir Denis Browne KCVO FRCS
(London)

Sir Denis Browne suggested that the only explanation of congenital constrictions was the one put forward by him in 1957 – the protrusion of various parts of the body through the foetal membranes, with a consequent circular pressure of greater or less degree as the encircled parts grew larger. The process in fact resembled the well-known circular constrictions of the limbs which various races produced by putting tight metal rings on the limbs in early life.

A simple experiment would show that circular constrictions could not be produced by bands, as the nearest approach would be a spiral groove. He demonstrated that if a wax candle were thrust through a small hole in a sheet of rubber and the wax softened by immersion in hot water, the contraction of the stretched rubber would produce a circular depression of the kind discussed. He explained the bands of unorganized tissue occasionally found in deep grooves as being the edge of the ring of membrane, which had shared in the mutual pressure necrosis produced by the expansion of the imprisoned parts, pointing out that this tissue was found only in constrictions with an ulcerated base.

The most popular hypothesis to date was that of Streeter (1930) who suggested an ulcerative process analogous to the tropical disease of *ainhum*, which might cause necrosis of digits. The final disproof of this was the occasional occurrence of constrictions running round the trunk; a photograph was shown of one in which the groove ran round the hips, just where a tight bathing dress would stick when it was being pulled off.

The hypothesis of membranous perforation would account for the recorded cases in which at birth a raw unhealed amputation stump had been found without any sign of the missing part, on

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the assumption that a foot had protruded through the cervix into the vagina, whence it could be passed unnoticed when it became detached.

The possibility of complete perforation of this kind was suggested by several cases he had been told of, in which there had been a prolonged leakage of fluid in later pregnancy.

He concluded by saying that the final evidence would be provided by an examination of the membranes from such a case, and asked for anyone who could procure such a specimen to send it in the usual formalin solution to Dr Martin Bodian, Morbid Anatomist to the Hospital for Sick Children, Great Ormond Street, London, WC1.

REFERENCES

- Browne D (1957) *Arch. Dis. Childh.* 32, 517
Streeter G L (1930) *Contr. Embryol. Carneg. Instn* 22, 41

Mitchell's Operation for Hallux Valgus

by W Waugh MChir FRCS
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near Mansfield, Notts)

In 1958 Mitchell and his associates reviewed his 'osteotomy-bunionectomy' operation and reported 'generally satisfactory' results. They felt that osteotomy through the neck of the first metatarsal had advantages over basal osteotomy since it 'corrected the metatarsus primus varus where it was most effective – at the metatarsophalangeal joint'. This seemed to be a suitable procedure for girls and young women with hallux valgus since it offered some prospect of relieving symptoms and restoring normal alignment and function of the big toe.

Technique of Operation

The operation aims to correct the metatarsus primus varus by a wedge osteotomy through the neck of the first metatarsal. At the same time the